ABSTRACT

This invention relates to the field of olefin polymerization catalyst compositions, and methods for the polymerization and copolymerization of olefins, including polymerization methods using a catalyst composition. One aspect of this invention is the formation and use of a catalyst composition comprising a stannoxy-substituted half-sandwich metallocene and an activator for olefin polymerization processes. For example, this invention encompasses the preparation of $(\eta^5-C_5H_5)Ti(OSnPh_3)Cl_2$, its contact with an activator, for example, zinc-impregnated chlorided alumina, to form a catalyst composition, and the use of this catalyst composition for polymerizing olefins or acetylenes.

Attorney Docket No. 51757-0310 (280410) Client File No. 33809US / PI 20545

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